Washington

Energy & Environment

BUILDING 374 DEMOLITION PLAN

for

BUILDING 371/374 DECONTAMINATION AND DECOMMISSIONING PROJECT

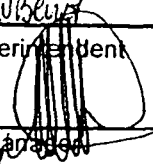
WG-DEMO-361

Revision 0

September 21, 2004

Concurrence:

Mitch B. Wisecup — 21 September 2004
Project Superintendent — Date



9/21/04
Radiation Manager — Date

9/21/04
Project Engineer — Date

9-21-04
Health & Safety Manager — Date

9/21/04
Quality Assurance Manager — Date

Approved By:

9/21/04
Project Manager — Date

9/21/04
Kaiser Hill — Date

Rev.	Date	Description of Revision		Mgr. QM	Dept. Mgr.

Building 374 Demolition Plan

Table of Contents

4

1.0 Introduction

This work plan has been written to describe the intended project sequence, equipment and management resources, as well as the demolition methodology for Building 374.

1.1 Purpose

This Building 374 Demolition Plan provides a description of the methods that will be used to guide the planning and implementation of demolition activities associated with the B371/374 Closure Project Decommissioning Operations Plan (DOP).

1.2 Scope and Policy

This Demolition Plan addresses the overall methodology to safely manage, plan, perform and control building access for equipment removal, ancillary equipment removal, demolition and other related activities associated with the B374 demolition as part of the B371/374 D&D Project. The following conditions will apply:

- Building 374 Demolition activities will begin only after the Pre-Demolition Survey has been completed and approved.
- Areas within the Building with fixed contamination will be protected from disturbance during demolition activities. Special consideration will be given to mitigating void spaces in accordance with the B371/374 Decommissioning Operations Plan (DOP).
- Work activities will include removal of remaining equipment and specific structures such as plenums, chillers, and appurtenances including roof sections, retaining walls, loading docks, pads, temporary structures, process lines and underground utilities or structures and building demolition.

2.0 Management Responsibilities

Provided, as Attachment 1 to this work plan is the Washington Group organization for the Building 371/374 D&D Project. The chart depicts the management described below and their reporting avenue to Washington Group management.

2.1 Demolition Manager

As the primary contact for Washington Group International (WGI), the Envirocon Demolition Manager (DM) ensures that all work activities associated with the project are performed, managed and packaged in accordance with this plan. In addition, the DM is responsible for providing the necessary personnel and equipment resources required to safely perform the work timely and in the most cost efficient manner. The DM is also responsible for organizing project staffing, coordinating the overall operations and directing or delegating responsibilities to project team members and/or subcontractors.

2.2 Demolition Superintendent

The project Demolition Superintendent (DS) reports directly to the Envirocon Demolition Manager. The DS interfaces with WGI Project Supervision daily to coordinate work activities, schedule future work and maintain status of work performed. The DS organizes, directs, supervises and coordinates construction and demolition activities, in addition to assisting with preparing and reviewing project plans, specifications, drawings and schedules. The DS is accountable for knowledge of all field construction and demolition activities. WGI coordinates and directs all direct-hire and subcontractor fieldwork and monitors craft and subcontractor

performance to ensure work scope is completed safely, timely and within the establish project budget.

2.3 Project Engineering

WGI will provide engineering support for this project. Washington group engineering will develop all Work Control Documents (WCDs) for demolition of B374. The Envirocon Demolition Manager and Superintendent will coordinate daily with WGI Engineering to ensure adequate planning is incorporated into the development of WCDs. WGI will provide a qualified structural engineer to analyze building components and enable safe demolition.

2.4 Health and Safety Manager

WGI will provide health and safety management for the demolition work. Envirocon will conduct all work in accordance with the Project Specific Health and Safety Plan (H&SP),WG-PSHSP-353, applicable federal, state and local regulatory requirements. Health and Safety provisions of the Washington Group Integrated Safety Management Systems (ISMS) principles and WCDs will be applied to all work activities. Envirocon will assist in identifying potential hazards and implementing appropriate control measures to ensure that work is conducted in a safe manner. Job Hazard Analysis (JHA) will be prepared and used to communicate potential hazards to personnel associated with the project.

2.5 Radiological Safety Manager (RSM)

WGI will provide the necessary Radiological Safety Management to ensure implementation of radiological provisions and As Low As Reasonably Achievable (ALARA) principles is incorporated into all work activities. All construction and demolition activities will be conducted in compliance with the approved WGI Project Specific Radiological Work Control Plan and the Site Radiological Protection Program (including the RFETS Site Radiological Control Manual and RFETS Radiological Safety Practices). All work activities performed in a radiological work environment will be in compliance with radiological safety practices and the Radiological Work Permit (RWP) pertaining to the building 374 demolition activities.

2.6 Waste Specialist

The Waste Specialist (WS) will be the point of contact for all waste issues. The WS will be responsible for waste characterization, packaging, coordination and management of waste items. All waste management activities associated with demolition will be conducted in compliance with the approved Waste Generator Instructions, Waste Management and Transportation Plan, and applicable RFETS Waste Management procedures.

2.7 Quality Assurance Manager/Representative

Envirocon will implement Quality Assurance Program requirements in accordance with the Washington Group approved Project Specific Quality Assurance Plan and Project Quality Procedures to incorporate applicable quality requirements and practices into the demolition activities. The necessary documentation verifying that demolition operations are being performed in accordance with the requirements of the established Project Specific Quality Assurance Plan will be completed on a daily basis. This QA documentation practice will ensure that demolition activities are being conducted in compliance with the Project Specific Quality Assurance Plan and applicable implementing procedures. Immediate notifications will be made for any noncompliance with contract or demolition requirements.

6

3.0 Building 374 Demolition

Demolition will commence after the following conditions or criteria are met:

- Areas scheduled for demolition will meet the requirements of the DOP.
- The Project Engineer has performed a structural survey and the structure has been declared safe for demolition per 29 CFR 1926.850 (a).
- Air monitoring requirements have been met
- An adequate supply of water for dust control activities is readily available.

- A State of Colorado certified Building Asbestos Inspector has declared structures scheduled for demolition to be consistent with the requirements of the specific B374 Demolition Asbestos Permits approved by the Colorado Department of Public Health and Environment (CDPHE).
- The Building and structures to be demolished have been prepared to meet all DOP requirements.

- The appropriate State of Colorado demolition permit has been obtained.

Debris generated for offsite disposal by demolition activities will be packaged and managed according to the Kaiser Hill Waste Management and Transportation Plans. No lead based paint abatement actions are required. Additionally, reasonable unrestricted access for equipment and personnel will be available around the perimeters of structures to be demolished.

3.1 Demolition Sequence

Demolition will be performed in the safest, most efficient sequence possible. The anticipated sequence is as follows; however, changes due to unexpected circumstances will be reevaluated and reflected in a revised Demolition Plan.

- Mobilization
- Interior demolition and strip out as needed and directed by WGI prior to demolition.
- Sealing interior basement sump, drains, and any other utility outlets to the Environment.
- Removal of any site features that may be required to properly execute building demolition. This includes but is not limited to overhead/underground utilities, and any other obstructions that could hinder the safe use of heavy equipment and execution of building demolition in this area.
- Demolition site preparation. Site preparation will include but may not be limited to preparing ground surfaces around Building 374 to adequately support cranes and other heavy equipment required for rigging/removal of equipment, demolitions, processing and loading of the structure and components for disposal.
- Removal of remaining interior equipment may be removed prior to demolition or may be sorted during debris processing.
- Demolition of 374 superstructures to ground floor slab. Separation of building 374 from building 371 will occur at the 15-16 column lines (16 being the end of 374) as determined by a structural Professional Engineer.
- Demolition of ground floor slab and side walls to 6' below final finished grade.
- Sizing and processing steel and other debris for offsite disposal as all portions of the demolition and removal process progress.
- Sizing of concrete debris to a maximum dimension of 2' for backfill of the 374 basement.
- Backfill of basement in B374 will take place assuring that all voids and openings in the demolition debris will be filled and properly compacted in a maximum of 2' lifts. Additional granular materials such as sand, slag, or mill chips will be brought to the site to be used as filler material for void spaces in the demolition debris as lifts are placed.

7

- Once the demolition debris has been covered with the granular material, remaining fill will consist of soils loaded and hauled from the immediate vicinity of B374/B371.
- Load out of steel and other debris into containers, as appropriate, for offsite disposal.
- Demolition site cleanup.
- Demobilization.

The sequences to be used for specific demolition activities will be addressed in task specific Work Control Documents (WCD) prior to the commencement of any demolition activities. Lessons learned will be applied to succeeding demolition planning and WCD development.

3.2 Demolition Approval

Prior to facility demolition, K-H will perform a Pre Demolition Survey (PDS). The PDS is performed to determine if a structure can be approved for demolition in accordance with the DOP and to provide information necessary to prepare a Pre Demolition Survey Report (PDSR). The PDSR must declare a specific area or building approved for demolition prior to beginning demolition activities.

3.3 Pre-Demolition Activities

3.3.1 Area Preparation Requirements

Adequate erosion or run-on/run-off controls will be incorporated for materials that are expected to remain in storage for prolonged periods of time. Any known contaminated surface soils in the areas immediately adjacent to planned demolition activities will be delineated and controlled. Typical controls include installation of berms, silt fence or straw bales- each or in combination. A temporary debris storage area, traffic patterns and specific-loading areas for waste management will be established. All personnel working in Building 371 will be notified of demolition activities as they approach column line 16. Access to affected areas will be taped off and or barricaded to keep personnel away from ongoing demolition. Communication of the planned work and associated impacts will occur during pre-planning meetings, schedule updates, and through the Kaiser Hill and Washington Group PODs.

3.3.2 Groundwater Protection Requirements

Groundwater sampling wells that exist in the B371/374 Closure Project boundary and have not been abandoned will be protected from damage from demolition activities. These wells will also be identified and flagged to provide added awareness and visibility. All existing subsurface drains will be plugged and rendered inoperable via grouting or other approved method.

3.3.3 Utility Requirements

All existing features associated with utility systems will be located and marked. All of these systems will be evaluated to determine protection, isolation or abandonment requirements. All utility locations and isolations will be provided by K-H prior to demolition.

Protective barriers or fences, and silt fence will be erected around permanent site features designated to remain after completion of demolition and site restoration. Electrical distribution switchgear and area lighting to remain operational in the demolition area will be flagged and

8

protected. The Fire Water Supply loop will remain active for B371 and B374 will be isolated outside the demolition area near valve number C3-14R.

3.3.4 Radiological Screening

The following methods will be used for determining what equipment/systems will remain in B374 during demolition. The intent is to maximize safety of the worker and minimize the hazards associated with D&D by utilizing heavy equipment to remove these items from the building. These methods will be used as they apply to the remaining items within the facility, and all may be used simultaneously.

A number of systems have been identified that will not be removed from the building. For items that are being granted an unrestricted release, verification surveys will be performed on accessible areas of the systems/equipment to ensure there is no contamination above transuranic release limits. These items will be free released in accordance with applicable procedures, as appropriate.

3.3.4.1 Non-contaminated Systems

Using process knowledge and field survey measurements, select systems/equipment will be provided an unrestricted release in accordance with RFETS procedures. A release evaluation will be performed on these items in accordance with PRO-141-RSP-09.01. If the items meet the criteria for release, they will remain in place during demolition. For these systems, if there is no detectable contamination AND process knowledge warrants, the components will be checked for liquid and then sealed as appropriate. Piping penetrations will be checked in a similar manner and then grouted shut to protect cross contaminating the penetration. Upon completion of demolition, these items will be removed, as feasible, from the rubble and disposed of properly, as required.

3.3.4.2 Potentially Contaminated Systems

Using process knowledge, select systems/equipment will be identified as potentially contaminated. Surveys will be conducted on these items to characterize any contamination that may exist. If contamination is discovered, systems/equipment, in particular pipe penetrations, will be grouted shut and/or a fixative will be applied to protect the contaminated area. These items will be identified with bright colored paint so they can be easily identified. They will remain in place during demolition. Upon completion of demolition, these items will be removed from the rubble and disposed of properly in accordance with site procedures.

3.3.4.3 Contaminated Systems

Contaminated system pipe penetrations will be surveyed for removable and fixed contamination on accessible areas, using current available RFETS instrumentation. For process piping or non-process piping which has detectable contamination, a decontamination attempt will be made. Various decon methods could be used, such as general wipe downs, or mechanical decontamination. Surveys will be performed on the contaminated system pipe penetrations (using current available RFETS instrumentation). When no further contamination is detected, the pipe penetrations will be surveyed for removable and fixed contamination on accessible areas. Current available RFETS instrumentation will be utilized for this survey. If there is no detectable contamination, the piping will be grouted shut to protect cross contaminating the penetration. The grouted penetrations will remain in place during demolition. No attempt would be made to remove these items from the rubble pile, as they are relatively small in size. Penetrations that cannot be granted an unrestricted release will be removed from the wall prior to demolition. If contaminated systems cannot be removed prior to demolition, they will be identified with bright

9

colored paint for ease of identification. Upon completion of demolition, these items will be removed from the rubble, and disposed of in accordance with site procedures.

Considerations will be made for each of the above methods based on pre-demolition survey requirements and decontamination requirements. If leaving these items in place interferes with either of these requirements, they will be removed.

Any potentially contaminated structural surface areas will be protected prior to demolition. A fixative can be applied or the area can be covered with dirt. This will protect that area from potential cross contamination during actual demolition.

Some examples of systems/equipment that will be left in place to be removed prior to or during demolition are listed below:

Air Handling Units on Roof
Stairways
Large Supply Duct and Supply Chase
Steel Pipe, Duct and Electrical Supports
Mezzanines in Rooms 4802 and 4815
Chillers
Supply air units
Filter plenums
The platform mezzanines in 4802, 4815
Elevator
Sprinkler Piping
South Drywall in Room 2804
Doorframes embedded in concrete
Chiller and Tower Water Piping
FP-321 Exhaust Stack
Non-process piping (excluding instrument air)
Room 4814 structural steel platform (after removal of metal checker plating between supports)

3.4 Demolition Activities

3.4.1 Demolition Preparation Activities

Asbestos abatement activities will be complete enough to facilitate demolition consistent with the requirements of the specific B374 Demolition Asbestos Permits approved by CDPHE. Hazardous material removal of items such as refrigerants, acids and other chemicals will be completed prior to demolition.

Demolition preparation will be necessary on the interior and exterior of the 374 structure. All sumps, drains, and other outlets to the environment from within the building will be sealed with grout or other acceptable materials as necessary and upon confirmation that radiological surveys of these penetrations have no detectable contamination.

Exterior preparations will begin with the removal of any site features that may be required to properly execute building demolition. This includes but is not limited to exterior tanks and pipe racks, overhead/underground utilities, process waste lines, and any other obstructions as necessary. Underground utilities and process waste lines will be located with the assistance of the Kaiser Hill Excavation Specialist. Once all utilities have been properly located and marked and a Soil Disturbance Permit has been approved, excavation/location will commence utilizing a backhoe or small excavator and hand digging by the labor crew. All utilities will be isolated or abandoned. Overhead and other obstructions will be identified and removed where possible with an excavator equipped with a bucket and thumb, grapple, or shear as necessary. Any other

obstruction that must remain will be properly marked and protected with concrete barriers, caution tape, and signage as applicable.

Following the completion of obstruction removal, ground surfaces will be prepared to adequately support cranes and other heavy equipment required for rigging/removal of equipment, demolition, processing, and loading of the structure and components for disposal. This work will include the use of grading and compacting of ground surfaces as necessary using the proper equipment such as a Motor Grader and Compactor.

3.4.2 Equipment Removal Prior to Demolition

A ramp access will be installed into Room 2804 south wall as part of dismantlement to facilitate tank removal and equipment access. After all tanks have been removed from set 19, the ramp will aid the removal of the plenums and other miscellaneous equipment from the basement prior to demolition as appropriate. The equipment will be relocated into Room 2804 and size reduced for waste loadout. In the event that some equipment may not be retrieved in this manner, select demolition of the building may be necessary to facilitate safe removal of the equipment (such as chiller removal from Room 2805). The ramp will also facilitate the use of smaller equipment such as a bobcat to enter the basement and make final demolition preparations as described below.

Prior to demolition of the main structure, it will be necessary to protect basement floors and walls containing fixed contamination from damage by demolition and backfill operations. Sealants or fixatives will be applied to the floors and walls (as required) followed by placement of, approximately 3' of a protective layer of fill in the basement (or as directed by the Kaiser Hill Contract Technical Representative). This fill will allow demolition debris to fall on a softened surface which will reduce impacts of debris in the basement as well as provide sound bedding to minimize void spaces during backfill operations. Fill will be brought in through the ramp provided for equipment removal and spread using smaller equipment such as a Bobcat. Additional access holes for sand placement may be provided from select points such as the opening at room 2804. In addition to the protective layer of fill placement, backfill material will be placed from the basement floor to grade in compacted lifts in the room 2804 section of the building. This backfill will allow demolition equipment to access the southern portion of the building on a solid working surface. Backfill requirements will be included in Task Specific WCD(s) for demolition. All plenums, chillers and other equipment scheduled for removal prior to demolition will be removed prior to backfilling.

3.4.3 Main Structure Demolition

Following the removal of all tanks, plenums, chillers, and all other necessary equipment from the entire building, demolition of the main structure will commence from the east proceeding toward the west. Building 374 will be demolished utilizing an excavator with a shear attachment. Openings to the basement will be appropriately sealed prior to commencing demolition activities. Floor loading for the ground floor slabs will be evaluated prior to placing any equipment onto the slabs. Demolition will begin with the removal of exterior concrete walls to allow access to the structural steel beams. The structural steel will then be cut and the entire above grade structure will be demolished to the ground floor slab. Demolition of building 374 will stop at the column line 16/15 that is the interface between building 371 and 374. Debris will then be removed from the ground floor slab and processed in designated staging areas. Once the majority of debris has been removed from the ground floor slab, an excavator equipped with a hydraulic hammer will demolish the slab allowing the concrete to fall into the basement onto the previously placed fill material. The east dock area east of column line 21 may be demolished prior to or in conjunction with the main structure demolition. Exterior walls will also be demolished to 6'below grade minimum using the excavator/hammer and excavator equipped with a concrete processor as

necessary. GPS survey will be completed prior to demolition to verify elevations. Backfill will commence once the entire demolition is complete.

3.4.4 Material Sizing

Concrete sizing will be taking place to the north of Building 374 using excavators equipped with a concrete pulverizer and/or hydraulic hammer and will be taking place as demolition progresses. All concrete will be sized to 2' minus pieces and staged for reuse as building backfill. All structural steel will be removed from the concrete and sized appropriately to fit in an SCO container for offsite disposal. Rebar will also be removed from the concrete matrix as practical. Loose rebar ends will be cut from sized concrete chunks using an excavator with shears (to the extent practical) and not field personnel in order to prevent workers from climbing on debris piles and using cutting torches. Any other demolition debris generated will be sized appropriately and placed into SCO containers for proper disposal.

3.4.5 Structure Backfill

Backfill will commence as enough sized concrete is generated to begin proper lifts of material in the basement of the structure. Prior to the introduction of any sized concrete, granular material such as slag or mill chips will be brought to the site and used to fill void spaces around the ground floor concrete that had been demolished into the basement. Once enough void space material has been placed, the fill, concrete debris, and void space material will be compacted prior to the placement of any additional concrete backfill material. Concrete backfill material will then be placed into the basement and compacted in compliance with the latest revision to the Earthwork Specification Section 02300 (2' lifts are anticipated). Multiple lifts will be necessary to use all sized concrete. Once the backfill of sized concrete is completed to 6' below grade surface (bgs) or concrete debris has run out, backfill material such as structural fill located at RFETS will be used. Final material to grade will be placed and compacted in compliance with the Earthwork Specification (no more than 2' lifts).

3.5 Demolition Equipment

This section describes various types of equipment that will be used. Demolition will be accomplished using a variety of mechanized equipment. Tracked excavators fitted with hydraulic attachments such as shears, "live" thumbs, processors and hammers will be used to accomplish the demolition requirements of this contract. Excavators and loaders will be used to place backfill material into the basement of the structure. All debris intended for off site disposal will be loaded into SCO containers, as necessary with Bobcats or small loaders. A mini excavator and or Bobcat equipped with hydraulic attachments will be used for interior demolition and backfill. The primary demolition steps and mechanical techniques for dismantling, segmenting and demolishing will be provided in task specific Work Control Documents.

3.5.1 Excavators and Attachments

Track mounted excavators with hydraulic attachments will be used to methodically disassemble structures. The basic attachments will include concrete pulverizers, shears, thumbs and hammers. These attachments perform the following functions:

- Concrete pulverizer jaw - separates concrete from re-bar and embedded steel beams.
- Hydraulic hammers - mounted on track excavators and used to dismantle larger concrete structures; capable of exerting forces of up to 10,000 lbs. per hit at 60 to 100 hits per minute.

- Hydraulic shear - severs metals, structural steel, wood, rubber and plastic. Shears are capable of exerting several hundred tons of force. Shears can be used to dismantled columns, beams and re-bar as well as above ground and below ground storage tanks.
- Thumbs - used as an attachment to the excavator bucket for demolition and material handling. Bucket and thumb arrangements provide a wide range of uses including demolition and material handling. These arrangements will be used along with loaders for demolition clean up.
- Compaction attachments (including vibratory plates)

3.5.2 Wet Diamond Concrete Saw

Circular saw equipped with a diamond-encrusted blade used for cutting concrete structures. Larger saws are self-propelled for ease of operation. Water is supplied through a hose to cool the blade and eliminate dust from the cutting operation.

3.5.3 Front End Loader

Hard tire front-end loaders will be used for segregation and load out of debris and for removal of surface materials from roadways and pathways.

3.5.4 Skid Steer Uniloader

Small skid-steer uniloaders will be used with hydraulic hammer and clam attachments. This unit will be primarily used for interior demolition as an assist to the small excavator and loading of waste containers.

3.5.5 Bulldozers and Compaction Equipment

Track bulldozers in the 85,000-pound range equipped with a semi-u blade will be used to push fill materials into the basement sections as well as structural fill for the foot print. It may be used to assist in managing stockpiled materials. A soil compactor with push blade in the range of 46,000# will be used along with the dozer to ensure mitigation of void spaces in the fill materials.

3.5.6 Mini-excavators

A smaller track mounted excavator equipped with mobile shear and not weighing in excess of 18,000# will be utilized on the interior demolition and strip out.

3.5.7 Trucks

Trucks will be used to move debris and fill materials within the project boundary as well as from off site locations. End dump, tandem axle side-dump trucks, or articulated trucks will be utilized.

3.6 Contamination Control

Demolition activities will not include remediation of contaminated soils. Activities will be managed to avoid disturbing contaminated soils as applicable. Control measures provided in the RSOP for Facility Disposition will be implemented as applicable when there is risk of encountering contaminated soils.

Environmental impacts will be minimized using procedures and task specific WCDs designed to prevent uncontrolled release of contaminated materials, to control water run-on/run-off and to minimize dust emissions.

3.6.1 Dust control

Various demolition tasks require evaluation to determine dust generation potential. Each demolition situation will dictate the dust control measure to be used. The method used is dependent upon the media being handled, the task being performed and the atmospheric conditions.

- Water spray will be used to minimize fugitive dust emissions during demolition. A water truck, frac tank with pump and/or water cannon may be used. For elevated application of water spray, a telescoping man-lift with basket-mounted water cannon will be used. Water will be applied in a controlled manner to mitigate dust emissions. Water will not be applied in amounts that would result in excessive run-off.
- Exterior demolition activities will be suspended during periods of high winds as determined by Washington Group Health and Safety.

3.6.2 Water Quality

The demolition WCD will address potential pollutant sources and the way in which the pollutant could reach surface waters, downstream basins, or ponds. Berms, silt fences, or similar erosion control devices will be used to prevent silt and debris from being washed into surface water drains. Drains and other sub surface openings will be sealed or plugged prior to demolition. Erosion controls will comply with Kaiser Hill Directive NRT-011-04.

3.6.3 Air Monitoring

Air quality impacts from demolition will be related to particulate emissions. Emission will be controlled and will be short term in duration. During demolition, air borne dust will be monitored on a visual presence or absence criterion. Dust control measures will be implemented when needed to prevent air borne dust. Low Vol air sampling equipment will be placed around the perimeters of planned demolition activities and will be included in Site Specific Work Control Documents.

3.7 Demolition Debris Disposal

All debris streams generated from demolition activities will be segregated, evaluated, characterized (if required), sized, staged and released for final disposition in accordance with Waste Generator Instructions. Debris requiring off-site disposal will include but is not limited to scrap metals, concrete, and demolition debris such as wood, plastic and glass.

Demolition debris/trash will be shipped as specified in the Site Specific Waste Management Plan to an approved offsite facility. The material will be managed on-site and loaded to meet the receiving facility's Waste Acceptance Criteria or Waste Acceptance Guidelines.

3.8 Recyclable Concrete for use as Fill

Building rubble/concrete will be sized to and stockpiled for re-use as fill in the basement of the structure. These materials will meet the criteria established in the RFCA Standard Operating Protocol for Recycling Concrete. WGI's Waste Management Specialist will coordinate these activities in accordance with K-H waste generation instructions.

3.9 Task Specific Demolition Work Control Documents

All demolition activities will be executed in accordance with the RSOP for Facility Disposition and Decommissioning Operations Plan (DOP) processes. These processes will be incorporated into WCDs, which will implement Integrated Safety Management System (ISMS) principles.

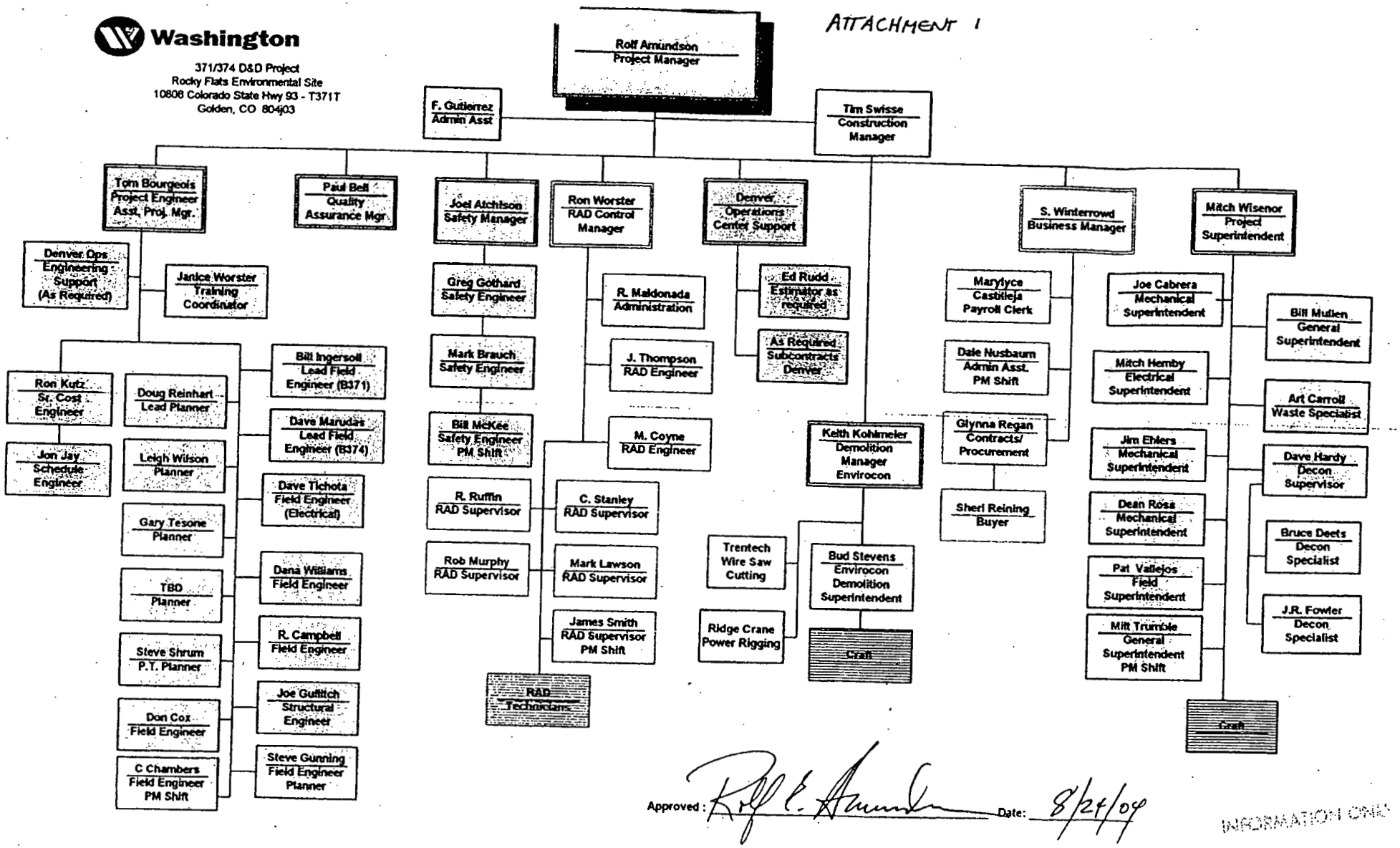
Task Specific WCDs will contain work instructions, demolition sequence, specific demolition methods, health and safety practices and waste management requirements. They will contain the following minimum information, where applicable:

- An engineering survey of the structure that determines the structural integrity of framing floors and walls.
- Job Hazard Analysis (JHA) covering each planned demolition activity.
- Requirements and information for shoring and bracing of remaining structures that have been altered by demolition.
- Instructions for isolation, air gapping and control measures for all electric, gas, water, steam, sewer and other service lines.
- Instructions for temporary relocation and protection of any utility that must be maintained through demolition activities.
- Instructions for protection in areas where material will be dropped down a chute (roofing material if necessary).
- Instructions for covering all floor openings with material substantial enough to support the weight of any reasonably expected load.
- Instructions for implementation of fall protection measures in areas where work will take place with a risk of falling from a height of greater than six feet without guard rails or an existing fall restraint system.
- Requirements and information for rigging and hoisting utilizing a crane.
- Instructions for backfill including minimum lift, characteristics of structural fill and compaction.

ATTACHMENT 1

Washington

371/374 D&D Project
Rocky Flats Environmental Site
10808 Colorado State Hwy 93 - T371T
Golden, CO 80403



Approved: Rolf E. Amundson Date: 8/24/04

INFORMATION ONLY

7/9/1